JEFFERSON COUNTY HEALTH DEPARTMENT

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TO: Peter Bierbaum, Colorado Department of Health

FROM: Cliff, Myers and Doug Ryan, Jefferson County Health Department

DATE: February 24, 1987

SUBJECT: Comments on Proposed Incineration at Rocky Flats Plant

Our comments on the proposed incineration at the Rocky Flats Plant are divided into three sections. The first section contains general comments on the issue of hazardous wastes and the risks they pose to the community. This is followed by a discussion of technical considerations concerning the impact of the proposed burn. Conclusions are offered in the final section. In preparing this response, we have reviewed the written plan and held discussions with the Environmental Protection Agency and the Colorado Department of Health.

GENERAL HAZARDOUS AND RADIOACTIVE WASTE ISSUES

The major issue regarding hazardous and mixed radioactive waste management is to limit exposure to man and the environment to the maximum extent feasable. The literature cites examples where exposure to hazardous waste has caused serious health and environmental problems. The causes of such exposures are primarily due to a lack of adequate management in the areas of generation, transportation, treatment or disposal of hazardous waste. The question to be addressed in this instance is whether the proposed test burn and possible subsequent routine burning of hazardous and mixed radioactive waste limits exposure to this waste to the maximum extent feasable.

Even with programs aimed at minimizing the amount of hazardous wastes produced, generation of some amounts of these wastes is unavoidable in our society. While secure hazardous waste landfills are a necessary component of an overall waste management strategy, they can never be a final disposal option for the majority of these wastes. Not enough space is available in such landfills, and the burden of monitoring these sites indefinitely is unrealistic. For this reason, waste reduction methods and treatment alternatives are necessary to lessen the volume of waste that must be stored in secure landfills.

All waste reduction methods pose some degree of risk. However, if they are accomplished successfully, the result will decrease the potential for further exposure. In general, waste reduction methods should be performed in close proximity to where the waste is generated. This is due to the inherent dangers involved in transporting hazardous materials. Controlled incineration of wastes at the Rocky Flats Plant would eliminate the need for transportation of the waste and lessen the amount of secured landfill space required. An added benefit is that the dry ash residue can be stabilized and stored with a much higher degree of safety than can the untreated wastes.

The location of Rocky Flats with respect to the metropolitan area underscores the reasons why transportation of the waste to another site is undesirable, but also is cause for concern with regard to incineration. If it was demonstrated that the destruction efficiency was 99.99% and that adequate controls exist to insure no significant releases during upset conditions, then controlled incineration at Rocky Flats would appear to be feasable. It is unclear from the proposal however, whether this control effeciency also relates to radioactive substance removal, or only to organic solvents. The problem is that this degree of efficiency and control has not been demonstrated with hazardous and mixed radioactive wastes. Our comments on the technical aspects of demonstrating this efficiency and control appear below.

TECHNICAL CONSIDERATIONS

A major concern in this matter is the impact that the proposed burning of mixed waste could have on the public health of the citizens of Jefferson County. There are a number of issues that are unclear at this time.

It is difficult to understand what emmissions will be released from the stacks, particularly in regard to radioactive emmissions, and how the filters will remove radioactive particulates. It is unclear as to who will be responsible for monitoring. Independent stack monitoring and sampling should be conducted by the Colorado Department of Health.

It is unclear from the information submitted, how the waste that is fed into the incinerator will be controlled and monitored. What safeguards are built into this plan to insure that the waste feed system will shut down when it should?

In evaluating the public health impact of the proposal, a worst - case scenario such as a major malfunction where the entire feed goes up the stack should be considered. What dose levels are acceptable for human exposure? Air modeling regarding the plume under such conditions should be considered at this time.

It is our understanding that the wastes that will be handled during the production burns include trash, gloves, oils and chemical compounds that are contaminated and tainted with low level radiation, and that the test burn will use spent uranium as a low-level radioactive substitute for the actual radioactive waste. At this time, Rockwell has not detailed the mix and concentrations of radioactive and chemical wastes that will be fed into the production incinerator, nor have they clarified the control efficiency for radioactive substance removal. The public health impact potential cannot be assessed without this information.

CONCLUSIONS

The Jefferson County Health Department supports the concept of waste reduction methods such as controled incineration as an alternative to storage in secure landfills. A test burn is necessary to evaluate the proposed technology with respect to destruction of mixed hazardous wastes. It is our recomendation however, that a test burn should not take place at Rocky Flats unless the technical considerations discussed in this memo are adequately addressed. If the technical considerations are satisfied, and the test burn is successful, then production burning at Rocky Flats should be considered as a viable method of waste reduction.

Thank you for the opportunity to comment in this open forum. Please feel free to call if you have any questions about our comments.